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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,151	07/01/1999	YUKIHISA TAKEUCHI	789-030	4816

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EXAMINER

MOONEY, MICHAEL P

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/341,151

Applicant(s)

TAKEUCHI ET AL.

Examiner

Michael P. Mooney

Art Unit

2877

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-40 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 2,4,6-8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 5, 9, 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhou (5953469).

Zhou teaches a display device comprising:

an optical waveguide plate (OWGP) for introducing light thereinto (fig. 2; col. 20 lines 22-26);

an actuator substrate (i.e., figs. 2, 3 no. 40) provided opposingly to one plate surface of said OWGP and arranged with actuator elements (fig. 3, nos. 30; also fig. 3 nos. 71-73) of a number corresponding to a large number of pixels;

a pixel structure formed on each of said actuator elements of said actuator substrate (See, e.g., fig. 3 no. 31); and

a crosspiece formed at a portion other than said pixel structure between said optical waveguide plate and said actuator substrate (See, e.g., fig. 10B no. 26).

Thus claim 1 is met.

Each and every element of claim 3 is taught at Zhou fig. 10B. Thus claim 3 is met.

Zhou teaches crosspiece is formed at portions around four corners of each of said pixel structure. (fig. 2). Thus claim 5 is met.

Zhou teaches crosspiece is formed integrally with actuator substrate (fig. 2; col.12 lines 2-6). Thus claim 9 is met.

Zhou teaches a recess formed on a surface of the pixel structure. (See, e.g., fig. 3 no. 31). Thus claim 11 is met.

Zhou teaches a step is formed on a surface of the pixel structure. (See, e.g., fig. 3 no. 31). Thus claim 12 is met.

Zhou teaches a a surface of the pixel structure has a concave configuration. (See, e.g., fig. 3 no. 31). The "sawtooth" of no. 31 has both concave and convex portions. Thus claim 13 is met.

Allowable Subject Matter

Claim 14-40 are allowed.

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Claims 2, 4, 6-8, 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yonekubo (6470115) also shows many aspects of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 703-308-6125. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 703-308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-

0956. An alternative useful number for status inquiries is 703-306-3329.


Michael P. Mooney
Examiner
Art Unit 2877


Frank G. Font
Supervisory Patent Examiner
Art Unit 2877

FGF/mpm
5/16/03